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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,003	04/01/2004	Hidekazu Arase	5077-000209	9576
27572 7590 06/01/2007 HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER SHOSHO, CALLIE E	
			ART UNIT 1714	PAPER NUMBER
			MAIL DATE 06/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,003

Applicant(s)

ARASE ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1,4,5 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/18/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 3/19/07.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 4-5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/072719 taken in view of the evidence given in Shimizu et al. (U.S. 5,928,220).

The rejection is adequately set forth in paragraph 4 of the office action mailed 1/5/07 and is incorporated here by reference.

Response to Arguments

4. Applicants' arguments filed 3/19/07 have been fully considered but they are not persuasive.

Specifically, applicants argue that WO 02/072719 does not describe presently claimed method of preparation which requires steps in the following order 1) mixing dye and condensation polymerizable silane, 2) adjusting pH, and 3) adding additive of organic acid or inorganic acid salt wherein the pH adjusting step occurs between the first mixing step and the second mixing step.

However, it is the examiner's position that WO 02/072719 does disclose presently claimed method for the following reasons.

Broadly, WO 02/072719 discloses method for preparing ink comprising adding buffering solution comprising inorganic acid salt, i.e. sodium dihydrogen phosphate, and pH adjusting agent, i.e. sodium hydroxide, to ink wherein the buffering solution adjusts the pH of the ink to 8-12 (col.17, lines 56-61 and col.18, lines 56-59). Although not explicitly recited, it is clear that after addition of the buffer solution, mixing would necessarily inherently occur to mix the buffer solution with the ink.

Thus, the method of WO 02/072719 comprises 1) preparing ink by mixing water-soluble dye, water, water-soluble medium, and water-soluble substance that is condensation polymerized in the absence of water, i.e. corresponding to first mixing step, 2) adding buffer solution to the mixture of 1), i.e. corresponding to presently claimed pH adjusting step, and 3) mixing buffer solution and ink, i.e. corresponding to second mixing step. Therefore, given that WO 02/072719 discloses method comprising preparing ink, adding buffer to the ink the addition of which would adjust the pH of the ink, and mixing the buffer solution with the ink wherein the buffer solution comprises additive as presently claimed, it is the examiner's position that WO 02/072719 discloses method as presently claimed. While the additive of WO 02/072719 is present during the pH adjusting step, there is nothing in the scope of the claims that excludes the additive from being present during the pH adjusting step. That is, there is no requirement in the present claims regarding when the additive is added only that solution and additive are mixed after pH adjusting step. Given that the buffer solution of WO 02/072719 comprises additive as presently claimed, given that WO 02/072719 discloses adding the buffer solution to the ink the mere addition of

which would adjust the pH of the ink and given that after such addition, the buffer solution and ink would necessarily inherently be mixed to form the final ink, it is clear that WO 02/072719 discloses method comprising two mixing steps, i.e. first mixing step of ingredients to form the initial ink (before addition of buffer) and second mixing step to form final ink (after addition of buffer solution) with pH adjusting step, i.e. addition of buffer solution, in between the two mixing steps.

Allowable Subject Matter

5. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 would be allowable if rewritten in independent form as described above given that there is no disclosure in the “closest” prior art WO 02/072719 of method of preparing ink having constituents of water-soluble dye, water, water-soluble substance that is condensation polymerized in the absence of water, water-soluble medium, and additive that includes at least one selected from the group consisting of an organic acid salt and an inorganic acid wherein a cation of the additive is NH_4^+ .

6. Claim 12 is allowable over the “closest” prior art WO 02/072719 given that there is no disclosure in the “closest” prior art WO 02/072719 of method of preparing ink having constituents of water-soluble dye, water, water-soluble substance that is condensation polymerized in the absence of water, water-soluble medium, and additive that includes at least

one selected from the group consisting of an organic acid salt and an inorganic acid wherein a cation of the additive is NH_4^+ .

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

— If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
5/28/07